Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (currently amended)A tree-structured document transmitting and receiving system having a tree-structured document transmitting apparatus and a tree-structured document receiving apparatus, said tree-structured document transmitting apparatus having:

tree-structured document storage means of storing a plurality of tree-structured documents;

node priority presentation means of presenting a node priority which is set with respect to each of nodes of a tree-structured document on the basis of the importance of an information portion to be presented from the node to a receiving-side user while satisfying two conditions: a first condition that the node priority of the node is equal to or lower than that of a node which is an ancestor of that node, and a second condition that if a plurality of nodes of the same priority exist, the nodes necessarily constitute one subtree;

node stream generation means of reading out a tree-structured document to be transmitted from the tree-structured document storage means and generating a node stream in which nodes and/or subtrees are arranged in a sequence on the basis of node priorities presented by said node priority presentation means; and

transmitting means of converting said node stream into a signal based on a predetermined network protocol and transmitting the signal, said tree-structured document receiving apparatus having:

receiving means of restoring the node stream from the signal received by said predetermined network protocol from said transmitting means;

extraction means of extracting at least one of the nodes ~~and/or~~ or the subtrees from the node stream restored by said receiving means according to the sequence of arrangement in the node stream;

reconstruction means of adding at least one of the nodes ~~and/or~~ or the subtrees ~~subtree~~ in the extraction order to the tree-structured document under reconstruction; and

display means of displaying the tree-structured document in the current reconstructed state.

2. (currently amended)The tree-structured document transmitting and receiving system according to Claim 1, wherein said tree-structured document transmitting apparatus further has:

descendant substitute display information storage means of storing descendant substitute display information for substitute display on said display means of said tree-structured document receiving apparatus for descendant nodes with respect to at least one of a node ~~and/or~~ or a subtree existing as a parent of the descendant node; and

descendent substitute display information addition means of making the node stream generation means generate as said node stream a stream in which the descendant substitute display information read out from said descendant substitute display information storage means is added

immediately after at least one of the node ~~and/or~~ or the subtree existing as a parent of the descendant node, and

wherein, in said tree-structured document receiving apparatus, said extraction means extracts at least one of the nodes ~~and/or~~ or the subtrees and the descendant substitute display information from the node stream restored by said receiving means according to the sequence of arrangement in the node stream; and

said reconstruction means adds a substitute structure portion relating to the descendant substitute display information to the tree structure under reconstruction in place of the descendant node relating to the descendant substitute display information when said extraction means extracts the descendant substitute display information.

3. (original) The tree-structured document transmitting and receiving system according to Claim 2, wherein, in said tree-structured document receiving apparatus, said reconstruction means immediately replaces the substitute tree-structured portion relating to the descendant substitute display information in the tree structure under reconstruction with the descendant node when said extraction means extracts the descendant node while substitute display for the descendant node according to the descendant substitute display information is being performed.

4. (currently amended)The tree-structured document transmitting and receiving system according to Claim 1, wherein said tree-structured document transmitting apparatus further has node priority setting means of determining the importance of an information portion to be presented from each node to the receiving-side user on the basis of a content of the node, an attribute of the node, a content of the

document, and attribute of the document, the tree structure, a user instruction from a transmitting-side user, or ~~and/or~~ a user instruction from the receiving-side user, and setting a node priority on the basis of the determination, and

wherein, in said tree-structured document transmitting apparatus, said node priority presentation means presents the node priority set by said node priority setting means.

5. (currently amended)A tree-structured document transmitting and receiving system having a tree-structured document transmitting apparatus and a tree-structured document receiving apparatus, said tree-structured document transmitting apparatus having:

tree-structured document storage means of storing a plurality of tree-structured documents;

a plurality of documents-by-document encoding means each assigned processing of one tree-structured document in a plurality of tree-structured documents to be transmitted, and each having node priority presentation means and node stream generation means, said node priority presentation means presenting a node priority which is set with respect to each of nodes of said assigned tree-structured document on the basis of the importance of an information portion to be presented from the node to a receiving-side user while satisfying two conditions: a first condition that the node priority of the node is equal to or lower than that of a node which is an ancestor of that node, and a second condition that if a plurality of nodes of the same priority exist, the nodes necessarily constitute one subtree, said node stream generation means reading out a tree-structured document to be transmitted from the tree-structured document storage means and generating a node stream in

which at least one of the nodes ~~and/or~~ or the subtrees are arranged in a sequence on the basis of node priority presented by said node priority presentation means;

inter-document priority presentation means of presenting inter-document priorities set as transmission priorities with respect to the plurality of tree-structured documents to be transmitted;

multiplexed stream generation means of generating one multiplexed stream by multiplexing the node streams from said document-by-document encoding means, sequences in which at least one of the nodes ~~and/or~~ or the subtrees of the tree-structured documents are arranged being placed in the multiplexed stream according to the inter-document priorities presented by said inter-document priority presentation means with respect to the tree-structured documents containing at least one of the nodes ~~and/or~~ or the subtrees; and

transmitting means of transmitting said multiplexed stream by converting said multiplexed stream on the basis of a predetermined network protocol, said tree-structured document receiving apparatus having:

receiving means of restoring the multiplexed stream from the signal received by said predetermined network protocol from said transmitting means;

demultiplexing means of demultiplexing the multiplexed stream into the plurality of node streams contained in the multiplexed stream;

a plurality of document-by-document decoding means each assigned processing of one node stream in the plurality of node streams demultiplexed by said demultiplexing means, and each including

extraction means and reconstruction means, said extraction means extracting the nodes ~~and/or~~ subtrees from said processing-assigned node stream according to the sequence of arrangement in the nodes stream, said reconstruction means adding at least one of the node ~~and/or~~ or the subtree in the extraction order to the tree-structured document under reconstruction; and

display means of displaying the tree-structured document under reconstruction in each document-by-document decoding means, the tree structured being displayed in the current reconstructed state at a corresponding position.

6. (currently amended)The tree-structured document transmitting and receiving system according to Claim 5, wherein, in said tree-structured document transmitting apparatus, said document-by-document encoding means further includes:

descendant substitute display information storage means of storing descendant substitute display information for substitute display on said display means of said tree-structured document receiving apparatus for descendant nodes with respect to at least one of a node ~~and/or~~ or a subtree existing as a parent of the descendant node; and

descendant substitute display information addition means of making the nodes stream generation means generate as said node stream a stream in which the descendant substitute display information read out from said descendant substitute display information storage means is added immediately after at least one of the node ~~and/or~~ or a subtree existing as a parent of the descendant node, and

wherein, in each document-by-document decoding means of said tree-structured document receiving apparatus, said extraction means extracts the nodes or ~~and/or~~ subtrees and the descendant substitute display information from the node stream restored by said receiving means according to the sequence of arrangement in the node stream; and

said reconstruction means adds a substitute structure portion relating to the descendant substitute display information to the tree structure under reconstruction in place of the descendant node relating to the descendant substitute display information when said extraction means extracts the descendant substitute display information.

7. (original) The tree-structured document transmitted and receiving system according to Claim 6, wherein, in each document-by-document decoding means of said tree-structured document receiving apparatus, said reconstruction means immediately replaces the substitute tree-structured portion relating to the descendant substitute display information in the tree structure under reconstruction with the descendant node when said extraction means extracts the descendant node while substitute display for the descendant node according to the descendant substitute display information is being performed.

8. (currently amended)The tree-structured document transmitting and receiving system according to Claim 5, where the multiplexed stream generation means of said tree-structured document transmitting apparatus further has node priority setting means of determining the importance of an information portion to be presented from each node to the receiving-side user on the basis of a content of the node, an attribute of the node, a content of the document, an attribute of the

document, the tree structure, or ~~and/or~~ a user instruction, and setting a node priority on the basis of the determination, and

wherein, in the multiplexed stream generation means of said tree-structured document transmitting apparatus, said node priority presentation means presents the node priority set by said node priority setting means.

9. (currently amended)The tree-structured document transmitting and receiving system according to Claim 5, wherein said tree-structured document transmitting apparatus further has inter-document priority setting means of setting inter-document priorities on the basis of the contents of the documents, the attributes of the documents, the degrees of relation with a search word relating to a search request from the receiving-side user, a user instruction from a transmitting-side user, or ~~and/or~~ a user instruction from the receiving-side user, and

wherein, in said tree-structured document transmitting apparatus, said inter-document priority presentation means presents the inner-document priorities set by said inter-document priority setting means.

10. (currently amended)A tree-structured document transmitting apparatus having:

tree-structured document storage means of storing a plurality of tree-structured documents;

node priority presentation means of presenting a node priority which is set with respect to each of nodes of a tree-structured document on the basis of the importance of an information portion to be presented from the node to a receiving-side user while satisfying two conditions: a first condition that the node priority of the node is equal to or lower than that

of a node which is an ancestor of that node, and a second condition that if a plurality of nodes of the same priority exist, the nodes necessarily constitute one subtree;

node stream generation means of reading out of a tree-structured document to be transmitted from the tree-structured document storage means and generating a node stream in which at least one of the nodes ~~and/or~~ or the subtrees are arranged in a sequence on the basis of node priority presented by said node priority presentation means; and

transmitting means of converting said node stream into a signal based on a predetermined network protocol and transmitting the signal.

11. (currently amended)The tree-structured document transmitting apparatus according to Claim 10, further having:

descendant substitute display information storage means of storing descendant substitute display information for substitute display on said display means of said tree-structured document receiving apparatus for descendant nodes with respect to at least one of a node ~~and/or~~ or a subtree existing as a parent of the descendant node; and

descendant substitute display information addition means of making the node stream generation means generate as said node stream a stream in which the descendant substitute display information read out from said descendant substitute display information storage means is added immediately after at least one of the node ~~and/or~~ or the subtree existing as a parent of the descendant node.

12. (currently amended)The tree-structured document transmitting apparatus according to Claim 10, further having:

node priority setting means of determining the importance of an information portion to be presented from each node to a receiving-side user on the basis of a content of the node, an attribute of the node, a content of the document, and attribute of the document, the tree structure, a user instruction from a transmitting-side user, or ~~and/or~~ a user instruction from the receiving-side user, and setting a node priority on the basis of the determination,

wherein said node priority presentation means presents the node priority set by said node priority setting means.

13. (currently amended)A tree-structured document receiving apparatus which receives a signal formed by converting on the basis of the predetermined network protocol a node stream formed in such a manner that a node priority is set with respect to each of nodes of a tree-structured document on the basis of the importance of an information portion to be presented from the node to a receiving-side user while satisfying two conditions: a first condition that the node priority of the node is equal to or lower than that of a node which is an ancestor of that node, and a second condition that if a plurality of nodes of the same priority exist, the nodes necessarily constitute one subtree; and nodes or ~~and/or~~ subtrees are arranged in a sequence on the basis of the node priorities, said tree-structured document receiving apparatus having:

receiving means of restoring the node stream from the signal received by the predetermined network protocol;

extraction means of extracting at least one of the nodes ~~and/or~~ or the subtrees from the node stream restored by said receiving means according to the sequence of arrangement in the node stream;

reconstruction means of adding at least one of the nodes ~~and/or~~ or the subtree in the extraction order to the tree-structured document under reconstruction; and

display means of displaying the tree-structured document in the current reconstructed sate.

14. (currently amended)The tree-structured document receiving apparatus according to Claim 13, wherein, in the node stream restored by said receiving means, descendant substitute display information for substitute display on said display means for descendant nodes with respect to at least one of a node ~~and/or~~ or a subtree existing as a parent of the descendant node is added immediately after at least one of the node ~~and/or~~ or the subtree existing as a parent of the descendant node;

said extraction means extracts at least one of the nodes ~~and/or~~ or the subtrees and the descendant substitute display information from the node stream restored by said receiving means according to the sequence of arrangement in the node stream; and

said reconstruction means adds a substitute structure portion relating to the descendant substitute display information to the tree structure under reconstruction in place of the descendant node relating to the descendant substitute display information when said extracting means extracts the descendant substitute display information.

15. (original) The tree-structured document receiving apparatus according to Claim 14, wherein said reconstruction means immediately replaces the substitute tree-structured portion relating to the descendant substitute display information in the tree structure under

reconstruction with the descendant node when said extraction means extracts the descendant node while substitute display for the descendant node according to the descendant substitute display information is being performed.

16. (currently amended)A tree-structured document transmitting apparatus having:

tree-structured document storage means of storing a plurality of tree-structured documents;

a plurality of document-by-document encoding means each assigned processing of one tree-structured document in a plurality of tree-structured documents to be transmitted, and each having node priority presentation means and node stream generation means, said node priority presentation means presenting a node priority which is set with respect to each of nodes of said assigned tree-structured document on the basis of the importance of an information portion to be presented from the node to a receiving-side user while satisfying two conditions: a first condition that the node priority of the node is equal to or lower than that of a node which is an ancestor of that node, and a second condition that if a plurality of nodes of the same priority exist, the nodes necessarily constitute one subtree, said node stream generation means reading out a tree-structured document to be transmitted from the tree-structured document storage means and generating a node stream in which at least one of the nodes ~~and/or~~ or the subtrees are arranged in a sequence on the basis of node priorities presented by said node priority presentation means;

inter-document priority presentation means of presenting inter-document priorities set as transmission priorities with respect to the plurality of tree-structured documents to be transmitted:

multiplexed stream generation means of generating one multiplexed stream by multiplexing the node streams from said document-by-document encoding means, sequences in which at least one of the nodes ~~and/or~~ or the subtrees of the tree-structured documents are arranged being placed in the multiplexed stream according to the inter-document priorities presented by said inter-document priority presentation means with respect to the tree-structured documents containing at least one of the nodes ~~and/or~~ or the subtrees; and transmitting means of transmitting said multiplexed stream by converting said multiplexed stream on the basis of a predetermined network protocol.

17. (currently amended)The tree-structured document transmitting apparatus according to Claim 16, wherein said document-by-document encoding means further includes:

descendant substitute display information storage means of storing descendant substitute display information for substitute display on said display means of said tree-structured document receiving apparatus for descendant nodes with respect to at least one of a node ~~and/or~~ or a subtree existing as a parent of the descendant node; and

descendant substitute display information addition means of making the node stream generation means generate as said node stream a stream in which the descendant substitute display information read out from said descendant substitute display information storage means is added

immediately after at least one of the node ~~and/or~~ or a subtree existing as a parent of the descendant node.

18. (currently amended)The tree-structured document transmitting apparatus according to Claim 16, wherein the multiplexed stream generation means of said tree-structured document transmitting apparatus further has node priority setting means of determining the importance of an information portion to be presented from each node to the receiving-side user on the basis of a content of the node, an attribute of the node, a content of the document, an attribute of the document, the tree structure, or ~~and/or~~ a user instruction, and setting a node priority on the basis of the determination, and

wherein, in the multiplexed stream generation means of said tree-structured document transmitting apparatus, said node priority presentation means presents the node priority set by said node priority setting means.

19. (currently amended)The tree-structured document transmitting apparatus according to Claim 16, further having inter-document priority setting means of setting inter-document priorities on the basis of the contents of the documents, the attributes of the documents, the degrees of relation with a search word relating to a search request from the receiving-side user, a user instruction from a transmitting-side user, or ~~and/or~~ a user instruction from the receiving-side user,

wherein said inter-document priority presentation means presents the inter-document priorities set by said inter-document priority setting means.

20. (currently amended)A tree-structured document receiving apparatus which receives a signal formed by converting on the basis of the predetermined network protocol a multiplexed stream formed in such a manner that a node priority is set with respect to each of nodes of a tree-structured document on the basis of the importance of an information portion to be presented from the node to a receiving-side user while satisfying two conditions: a first condition that the node priority of the node is equal to or lower than that of a node which is an ancestor of that node, and a second condition that if a plurality of nodes of the same priority exist, the nodes necessarily constitute one subtree; node streams are formed in each of which, with respect to one of a plurality of tree-structured documents to be presently transmitted, at least one of nodes ~~and/or~~ or subtrees are arranged in a sequence on the basis of the node priorities related to the tree-structured document; and the multiplexed stream if formed by multiplexing the node streams relating to the tree-structured documents to be presently transmitted, sequences in which at least one of the nodes ~~and/or~~ or subtrees of the tree-structured documents are arranged being placed in the multiplexed stream according to inter-document priorities set with respect to the tree-structured documents containing the nodes or ~~and/or~~ subtrees, said tree-structured document receiving apparatus having:

receiving means of restoring the multiplexed stream from the signal received by the predetermined network protocol;

demultiplexing means of demultiplexing the multiplexed stream into the plurality of node streams contained in the multiplexed stream;

a plurality of document-by-document decoding means each assigned processing of one node stream in the plurality of node streams

demultiplexed by said demultiplexing means, and each including extraction means and reconstruction means, said extraction means extracting the at least one of the nodes ~~and/or~~ or subtrees from said processing-assigned node stream according to the sequence of arrangement in the nodes stream, said reconstruction means adding the node or ~~and/or~~ subtree in the extraction order to the tree-structured document under reconstruction; and

display means of displaying the tree-structured document under reconstruction in each document-by-document decoding means, the tree structured being displayed in the current reconstructed state at a corresponding position.

21. (currently amended)The tree-structured document receiving apparatus according to Claim 20, wherein, in the node stream, descendant substitute display information for substitute display on said display means for descendant nodes with respect to at least one of a node ~~and/or~~ or a subtree existing as a parent of the descendant node is added immediately after at least one of the node ~~and/or~~ or the subtree existing as a parent of the descendant node;

said extraction means in said document-by-document decoding means extracts at least one of the nodes ~~and/or~~ or the subtrees and the descendant substitute display information from the node stream according to the sequence of arrangement in the node stream; and

said reconstruction means in said document-by-document decoding means adds a substitute structure portion relating to the descendant substitute display information to the tree structure under reconstruction in place of the descendant node relating to the descendant substitute

display information when said extraction means extracts the descendant substitute display information.

22. (original) The tree-structured document receiving apparatus according to Claim 21, wherein said reconstruction means in said document-by-document decoding mean immediately replaces the substitute tree-structured portion relating to the descendant substitute display information in the tree structure under reconstruction with the descendant code when said extraction means extracts the descendant node while substitute display for the descendant node according to the descendant substitute display information is being performed.

23. (currently amended)A tree-structured document transmitting and receiving method having a tree-structured document transmitting method and a tree-structured document receiving method, said tree-structured document transmitting method having:

a node stream generation step of generating a node stream in such a manner that a node priority is set with respect to each of nodes of a tree-structured document on the basis of the importance of an information portion to be presented from the node to a receiving-side user while satisfying two conditions: a first condition that the node priority of the node is equal to or lower than that of a node which is an ancestor of that node, and a second condition that if a plurality of nodes of the same priority exist, the nodes necessarily constitute one subtree; a tree-structured document to be transmitted is read out from tree-structured document storage means; and at least one of the nodes ~~and/or~~ or the subtrees of the tree-structured document are arranged in a sequence on the basis of said node priorities; and

a transmitting step of converting said node stream into a signal based on a predetermined network protocol and transmitting the signal, said tree-structured document receiving apparatus having:

a receiving step of restoring the node stream from the signal received by said predetermined network protocol;

an extraction step of extracting at least one of the nodes ~~and/or~~ or the subtrees from the node stream restored by said receiving means according to the sequence of arrangement in the node stream;

a reconstruction step of adding at least one of the nodes ~~and/or~~ or the subtree in the extraction order to the tree-structured document under reconstruction; and

a display step of displaying on the display means the tree-structured document in the current reconstructed state.

24. (currently amended)The tree-structured document transmitting and receiving method according to Claim 23, wherein said tree-structured document transmitting apparatus further has:

a descendant substitute display information addition step of generating, in the node stream generation step, as said node stream, a node stream in which descendant substitute display information for substitute display on display means on the receiving side for descendant nodes with respect to at least one of a node ~~and/or~~ or a subtree existing as a parent of the descendant node is added immediately after at least one of the node ~~and/or~~ or the subtree existing as a parent of the descendant node, and

wherein, in said tree-structured document receiving method, said extraction step comprises extracting at least one of the nodes ~~and/or~~ or the subtrees and the descendant substitute display information from the node stream restored in said receiving step according to the sequence of arrangement in the node stream; and

said reconstruction step comprises adding a substitute structure portion relating to the descendant substitute display information to the tree structure under reconstruction in place of the descendant node relating to the descendant substitute display information when the descendant substitute display information is extracted in said extraction step.

25. (original) The tree-structured document transmitting and receiving method according to Claim 24, wherein, in said tree-structured document receiving method, said reconstruction step comprises immediately replacing the substitute tree-structured portion relating to the descendant substitute display information in the tree structure under reconstruction with the descendant node when the descendant node is extracted in said extraction step while substitute display for the descendant node according to the descendant substitute display information is being performed.

26. (currently amended)The tree-structured document transmitting and receiving method according to Claim 23, wherein said tree-structured document transmitting method as a node priority setting step of setting node priorities used in the node stream generation step, and

wherein, in said node priority setting step, the importance of an information portion to be presented from each node to the receiving-side user is determined on the basis of a content of the node, an attribute of the node, a content of the document, an attribute of the

document, the tree structure, a user instruction from a transmitting-side user, or ~~and/or~~ a user instruction from the receiving-side user, and a node priority is set on the basis of the determination.

27. (currently amended)A tree-structured document transmitting and receiving method having a tree-structured document transmitting method and a tree-structured document receiving method, said tree-structured document transmitting method having:

a plurality of document-by-document encoding steps each assigned processing of one tree-structured document in a plurality of tree-structured documents to be transmitted, and each including a node stream generation substep comprising generating a node stream in such a manner that a node priority is set with respect to teach of nodes of a tree-structured document on the basis of the importance of an information portion to be presented from the node to a receiving-side user while satisfying two conditions: a first condition that the node priority of the node is equal to or lower than that of a node which is an ancestor of the node, and a second condition that if a plurality of nodes of the same priority exist, the nodes necessarily constitute one subtree; one assigned tree-structured document is read out from tree-structured document storage means; and at least one of the nodes ~~and/or~~ or the subtrees of the tree-structured document are arranged in a sequence on the basis of said node priorities;

a multiplexed stream generation step of generating one multiplexed stream by multiplexing the node streams in said document-by-document encoding steps, inter-document priorities being set as transmission priorities with respect to the plurality of tree-structured documents to be transmitted, sequences in which at least one of the

nodes ~~and/or~~ or the subtrees of the tree-structured documents are arranged being placed in the multiplexed stream according to the inter-document priorities with respect to the tree-structured documents; and

a transmitting step of transmitting said multiplexed stream by converting said multiplexed stream on the basis of a predetermined network protocol, said tree-structured document receiving method having:

a receiving step of restoring the multiplexed stream from the signal received by the predetermined network protocol;

a demultiplexing step of demultiplexing the multiplexed stream into the plurality of node streams contained in the multiplexed stream;

a plurality of document-by-document decoding means each assigned processing of one node stream in the plurality of node streams demultiplexed by said demultiplexing step, and each including extraction substep and reconstruction substep, said extraction substep comprising extracting at least one of the nodes ~~and/or~~ or the subtrees from said processing-assigned node stream according to the sequence of arrangement in the nodes stream, said reconstruction substep comprising adding at least one of the node ~~and/or~~ or the subtree extracted in said extraction substep in the extraction order to the tree-structured document under reconstruction; and

a display step of displaying the tree-structured document under reconstruction in each document-by-document decoding step, the tree structured being displayed in the current reconstructed state at a corresponding position of the display means.

28. (currently amended)The tree-structured document transmitting and receiving method according to Claim 27, wherein, in said tree-structured document transmitting method, said document-by-document encoding step further includes:

a descendant substitute display information addition substep of generating, in the node stream generation step, as said node stream, a node stream in which descendant substitute display information for substitute display on said display means on the receiving side for descendant nodes with respect to at least one of a node ~~and/or~~ or a subtree existing as a parent of the descendant node is added immediately after at least one of the node ~~and/or~~ or the subtree existing as a parent of the descendant node; and

wherein, in said tree-structured document receiving method, said extraction substep in each document-by-document decoding step comprises extracting at least one of the nodes ~~and/or~~ or the subtrees and the descendant substitute display information from the node stream restored by said receiving step according to the sequence of arrangement in the node stream; and

said reconstruction substep in each document-by-document decoding step of said tree-structured document receiving method comprises adding a substitute structure portion relating to the descendant substitute display information to the tree structure under reconstruction in place of the descendant node relating to the descendant substitute display information when said the descendant substitute display information is extracted in said extraction substep.

29. (original) The tree-structured document transmitted and receiving method according to Claim 28, wherein, in each tree-structured

document receiving method, said reconstruction substep in each document-by-document decoding step comprises immediately replacing the substitute tree-structured portion relating to the descendant substitute display information in the tree structure under reconstruction with the descendant node when the descendant node is extracted in said extraction substep while substitute display for the descendant node according to the descendant substitute display information is being performed.

30. (currently amended)The tree-structured document transmitting and receiving method according to Claim 27, wherein the multiplexed stream generation step of said tree-structured document transmitting method includes a node priority setting substep of setting node priorities used in the node stream generation substep, and

wherein, in said node priority setting substep, the importance of an information portion to be presented from each node to the receiving-side user is determined on the basis of a content of the node, an attribute of the node, a content of the document, and attribute of the document, the tree structure, or ~~and/or~~ a user instruction, and a node priority is set on the basis of the determination.

31. (currently amended)The tree-structured document transmitting and receiving method according to Claim 27, wherein said tree-structured document transmitting method further has an inter-document priority setting step of setting inter-document priorities on the basis of the contents of the documents, the attributes of the documents, the degrees of relation with a search word relating to a search request from the receiving-side user, a user instruction from a transmitting-side user, or ~~and/or~~ a user instruction from the receiving-side user, and

wherein, in said tree-structured document transmitting method, said multiplexed stream generation step comprises restoring the multiplexed stream on the basis of the inter-document priorities set in said inter-document priority setting step.

32. (currently amended)A tree-structured document transmitting method having:

a plurality of document-by-document encoding steps each assigned processing of one tree-structured document in a plurality of tree-structured documents to be transmitted, and each including a node stream generation substep comprising generating a node stream in such a manner that a node priority is set with respect to each of nodes of tree-structured document on the basis of the importance of an information portion to be presented from the node to a receiving-side user while satisfying two conditions: a first condition that the node priority of the node is equal to or lower than that of a node which is an ancestor of that node, and a second condition that if a plurality of nodes of the same priority exist, the nodes necessarily constitute one subtree; one assigned tree-structured document is read out from tree-structured storage means; and at least one of the nodes ~~and/or~~ or the subtrees of the tree-structured document are arranged in a sequence on the basis of said node priorities;

a multiplexed stream generation step of generating one multiplexed stream by multiplexing the node stream in said document-by-document encoding steps, inter-document priorities being set as transmission priorities with respect to the plurality of tree-structured documents to be transmitted, sequences in which at least one of the nodes ~~and/or~~ or the subtrees of the tree-structured documents are arranged being placed in

the multiplexed stream according to the inter-document priorities with respect to the tree-structured documents; and

a transmitting step of transmitting said multiplexed stream by converting said multiplexed stream on the basis of a predetermined network protocol.

33. (currently amended)The tree-structured document transmitting method according to claim 32, wherein the node stream generation substep in said document-by-document encoding step includes a descendant substitute display information addition substep of generating, in the node stream generation step, as said node stream, a stream in which the descendant substitute display information for substitute display on display means on the receiving side for descendant nodes with respect to at least one of a node ~~and/or~~ or a subtree existing as a parent of the descendant node is added immediately after at least one of the node ~~and/or~~ or the subtree existing as a parent of the descendant node.

34. (currently amended)The tree-structured document transmitting method according to Claim 32, wherein said multiplexed stream generation step includes a node priority setting substep of setting node priorities used in the node stream generation substep, and

wherein, in said node priority setting substep, the importance of an information portion to be presented from each node to the receiving-side user is determined on the basis of a content of the node, an attribute of the node, a content of the document, and attribute of the document, the tree structure, or ~~and/or~~ a user instruction, and a node priority is set on the basis of the determination.

35. (currently amended)A tree-structured document receiving method of receiving a signal formed by converting on the basis of the predetermined network protocol a node stream formed in such a manner that a node priority is set with respect to each of nodes of a tree-structured document on the basis of the importance of an information portion to be presented from the node to a receiving-side user while satisfying two conditions: a first condition that the node priority of the node is equal to or lower than that of a node which is an ancestor of that node, and a second condition that if a plurality of nodes of the same priority exist, the nodes necessarily constitute one subtree; and at least one of the nodes ~~and/or~~ or the subtrees are arranged in a sequence on the basis of the node priorities, said tree-structured document receiving apparatus having:

a receiving step of restoring the node stream from the signal received by the predetermined network protocol;

an extraction step of extracting at least one of the nodes ~~and/or~~ or the subtrees from the node stream restored in said receiving step according to the sequence of arrangement in the node stream;

a reconstruction step of adding at least one of the extracted nodes ~~and/or~~ or the subtree in the extraction order to the tree-structured document under reconstruction; and

a display step of displaying the tree-structured document in the current reconstructed state.

36. (currently amended)The tree-structured document receiving method according to Claim 35, wherein, in the node stream restored in said receiving step, descendant substitute display information for substitute

display on said display means for descendant nodes with respect to at least one of a node ~~and/or~~ or a subtree existing as a parent of the descendant node is added immediately after at least one of the node ~~and/or~~ or the subtree existing as a parent of the descendant node;

said extraction step comprises extracting at least one of the nodes ~~and/or~~ or the subtrees and the descendant substitute display information from the node stream restored in said receiving step according to the sequence of arrangement in the node stream; and

said reconstruction step comprises adding a substitute structure portion relating to the descendant substitute display information to the tree structure under reconstruction in place of the descendant node relating to the descendant substitute display information when the descendant substitute display information is extracted in said extraction step.

37. (original) The tree-structured document receiving method according to Claim 36, wherein said reconstruction step comprises immediately replacing the substitute tree-structured portion relating to the descendant substitute display information in the tree structure under reconstruction with the descendant node when the descendant node is extracted in said extraction step while substitute display for the descendant node according to the descendant substitute display information is being performed.

38. (currently amended)A tree-structured document transmitting method having:

a plurality of document-by-document encoding means each assigned processing of one tree-structured document in a plurality of tree-structured documents to be transmitted, and each including a node

stream generation substep comprising generating a node stream in such a manner that a node priority is set with respect to each of nodes of a tree-structured document on the basis of the importance of an information portion to be presented from the node to a receiving-side user while satisfying two conditions: a first condition that the nodes priority of the node is equal to or lower than that of a node which is an ancestor of that node, and a second condition that if a plurality of nodes of the same priority exist, the nodes necessarily constitute one subtree, one assigned tree-structured document is read out from tree-structured document storage means, and at least one of the nodes ~~and/or~~ or the subtrees of the tree-structured document are arranged in a sequence on the basis of said node priorities;

a multiplexed stream generation step of generating one multiplexed stream by multiplexing the node streams from said document-by-document encoding steps, inter-document priorities being set as transmission priorities with respect to the plurality of tree-structured documents to be transmitted, sequences in which at least one of the nodes ~~and/or~~ or the subtrees of the tree-structure documents are arranged being placed in the multiplexed stream according to the inter-document priorities with respect to the tree-structured documents; and

a transmitting step of transmitting said multiplexed stream by converting said multiplexed stream on the basis of a predetermined network protocol.

39. (currently amended)The tree-structured document transmitting method according to Claim 38, wherein said document-by-document encoding step further includes a descendant substitute display information addition substep of generating, in the node stream generation step, as

said node stream, a stream in which descendant substitute display information for substitute display on display means on the receiving side for descendant nodes with respect to at least one of a node ~~and/or~~ or a subtree existing as a parent of the descendant node is added immediately after at least one of the node ~~and/or~~ or the subtree existing as a parent of the descendant node.

40. (currently amended)The tree-structured document transmitting method according to Claim 38, wherein said multiplexed stream generation step further includes a node priority setting substep of determining the importance of an information portion to be presented from each node to the receiving-side user on the basis of a content of the node, and attribute of the node, a content of the document, an attribute of the document, the tree structure, or ~~and/or~~ a user instruction, and setting a node priority on the basis of determination,

wherein the multiplexed generation step of said tree-structured document transmitting method includes a node priority setting substep of setting node priorities used in the node stream generation substep, and

wherein, in said node priority setting substep, the importance of an information portion to be presented from each node to the receiving-side user in determined on the basis of a content of the node, an attribute of the node, a content of the document, an attribute of the document, the tree structure, or ~~and/or~~ a user instruction, and a node priority is set on the basis of determination.

41. (currently amended)The tree-structured document transmitting method according to Claim 38, further having an inter-document priority setting step of setting inter-document priorities on the basis of the contents of

the documents, the attributes of the documents, the degrees of relation with a search word relating to a search request from the receiving-side user, a user instruction from a transmitting-side user, or ~~and/or~~ a user instruction from the receiving-side user,

wherein said multiplexed stream generation step comprises restoring the multiplexed stream on the basis of the inter-document priorities set in the inter-document priority setting substep.

42. (currently amended)A tree-structured document receiving method of receiving a signal formed by converting on the basis of the predetermined network protocol a multiplexed stream formed in such a manner that a node priority is set with respect to each of nodes of a tree-structured document on the basis of the importance of an information portion to be presented from the node to a receiving-side user while satisfying two conditions: a first condition that the node priority of the node is equal to or lower than that of a node which is an ancestor of that node, and a second condition that if a plurality of nodes of the same priority exist, the nodes necessarily constitute one subtree; node streams are formed in each of which, with respect to one of a plurality of tree-structured documents to be presently transmitted, at least one of nodes ~~and/or~~ or subtrees are arranged in a sequence on the basis of the node priorities related to the tree-structured document; and the multiplexed stream is formed by multiplexing the node streams relating to the tree-structured documents to be presently transmitted, sequences in which at least one of the nodes ~~and/or~~ or the subtrees of the tree-structured documents are arranged being placed in the multiplexed stream according to inter-document priorities set with respect to the tree-structured documents containing at least one of the

nodes ~~and/or~~ or the subtrees, said tree-structured document receiving apparatus having:

a receiving step of restoring the multiplexed stream from the signal received by the predetermined network protocol;

a demultiplexing step of demultiplexing the multiplexed stream into the plurality of node streams contained in the multiplexed stream;

a plurality of document-by-document decoding means each assigned processing of one node stream in the plurality of node streams demultiplexed in said demultiplexing step, and each including an extraction substep and a reconstruction substep, said extraction substep comprising extracting at least one of the nodes ~~and/or~~ or the subtrees from said processing-assigned node stream according to the sequence of arrangement in the nodes stream, said reconstruction substep comprising adding the node or ~~and/or~~ subtree extracted in said extraction substep in the extraction order to the tree-structured document under reconstruction; and

a display step of displaying the tree-structured document under reconstruction in each document-by-document decoding step, the tree structured being displayed in the current reconstructed state at a corresponding position of the display means.

43. (currently amended)The tree-structured document receiving method according to Claim 42, wherein, in the node stream, descendant substitute display information for substitute display on said display means for descendant nodes with respect to at least one of a node ~~and/or~~ or a subtree existing as a parent of the descendant node is

added immediately after at least one of the node ~~and/or~~ or the subtree existing as a parent of the descendant node;

said extraction substep in said document-by-document decoding step comprises extracting at least one of the nodes ~~and/or~~ or the subtrees and the descendant substitute display information from the node stream according to the sequence of arrangement in the node stream; and

said reconstruction substep in said document-by-document decoding step comprises adding a substitute structure portion relating to the descendant substitute display information to the tree structure under reconstruction in place of the descendant node relating to the descendant substitute display information when the descendant substitute display information is extracted in said extraction substep.

44. (original) The tree-structured document receiving method according to Claim 43, wherein said reconstruction substep in said document-by-document decoding step comprises immediately replacing the substitute tree-structured portion relating to the descendant substitute display information in the tree structure under reconstruction with the descendant node when the descendant node is extracted in said extraction substep while substitute display for the descendant node according to the descendant substitute display information is being performed.